

Docket No. AT9-98-267

1

2 **CLAIMS:**

3 What is claimed is:

1

1. A method for performing general integrity checks
using rules in an application running on a data
processing system comprising:

4

identifying a point in a unit of work where
application state integrity is to be verified, wherein
the unit of work includes a plurality of participants;

7

responsive to determining that the unit of work is
to be completed, obtaining rules associated with each
participant in the unit of work;

10

responsive to obtaining the rules, running the rules
obtained for each of the participants to verify the
integrity of an application state, according to the
plurality of participants;

13

1

2. The method of claim 1, further comprising:

2

responsive to a negative result obtained by running
the rules, aborting the unit of work.

3

1

3. The method of claim 1, further comprising:

2

responsive to a positive result obtained by running
the rules, committing the unit of work.

3

1

4. The method of claim 1, wherein each participant is
associated with a name and wherein the step of obtaining
rules associated with each participant in the unit of

2

3

Sub
GA
Docket 14640260

[illegible]

1 8. A method in a data processing system for performing
2 general integrity checks using rules, the method
3 comprising:
4 detecting a commit for a unit of work;
5 identifying participants in the unit of work in
6 response to detecting the commit for the unit of work;
7 determining whether rules are present for the
8 participants in the unit of work;
9 running the rules for participants identified as
10 having at least one rule;

Docket No. AT9-98-267

11 determining whether a violation of an integrity rule
 12 within the rules identified for any participant has
 13 occurred; and

14 committing the unit of work depending on the results
 15 of running the rules.

1 9. The method of claim 8 further comprising:
 2 aborting completion of processing by the unit of
 3 work in response to a determination that a violation of a
 4 rule has occurred; and

5 committing completion of processing by the unit of
 6 work in response to a determination that no violation of
 7 a rule has occurred.

1 10. The method of claim 8, wherein each participant has
 2 zero or more rules associated therewith.

1 11. The method of claim 8, wherein each rule associated
 2 with a unit of work has available for use each
 3 participant within the unit of work.

1 12. An enterprise application for use in a computer, the
 2 enterprise application comprising:

3 a unit of work, wherein the unit of work accumulates
 4 participants that affect a state of the enterprise
 5 application;

6 a plurality of business rules, wherein the plurality
 7 of rules are used to verify the integrity of the
 8 application state; and

SECRET FOR EYES

Sub
 98
 267

Sub
92
B2

Docket No. AT9-98-267

9 a unit of work control point, wherein the unit of
10 work control point locates applicable rules for
11 participants in response to an activation of the unit of
12 work to complete processing of the unit of work.

1 13. The enterprise application of claim 12, wherein the
2 activation of the unit of work control point for the unit
3 of work is initiated by a commit instruction to the unit
4 of work.

1 14. The enterprise application of claim 12, wherein the
2 control point identifies applicable rules for all of the
3 participants in the work of unit.

1 15. The enterprise application of claim 12, wherein the
2 control point applies applicable rules to a portion of
3 the participants in the work of unit.

1 16. The enterprise application of claim 12, wherein the
2 applicable rules are identified based on a name
3 associated with the participant.

1 17. The enterprise application of claim 12, the
2 participant is an object and wherein the name is the
3 class name of the participating object.

1 18. The enterprise application of claim 17, wherein the
2 unit of work is associated with a type and wherein the
3 applicable rules also are identified based on the type
4 associated with the unit of work.

2025 RELEASE UNDER E.O. 14176

Docket No. AT9-98-267

Sub
Q2
Q2
1 19. A data processing system for performing general
2 integrity checks using rules in an application running on
3 a data processing system comprising:

4 identifying means for identifying a point in a unit
5 of work where application state integrity is to be
6 verified, wherein the unit of work includes a plurality
7 of participants;

8 first obtaining means, responsive to determining
9 that the unit of work is to be completed, for obtaining
10 rules associated with each participant in the unit of
11 work; and

12 second obtaining means, responsive to obtaining the
13 rules, for running the rules obtained for each of the
14 participants to verify the integrity of the system,
15 according to the plurality of participants.

1 20. The data processing system of claim 19, further
2 comprising:

3 aborting means, responsive to a negative result
4 obtained by running the rules, for aborting the unit of
5 work.

1 21. The data processing system of claim 19, further
2 comprising:

3 committing means, responsive to a positive result
4 obtained by running the rules, for committing the unit of
5 work.

SECRET - FRODO

Sub
Q2
B2

Docket No. AT9-98-267

1 22. A data processing system for performing general
2 integrity checks using rules, the data processing system
3 comprising:

4 detecting means for detecting a commit for a unit of
5 work;

6 identifying means for identifying participants in
7 the unit of work in response to detecting the commit for
8 the unit of work;

9 first determining means for determining whether
10 rules are present for the participants in the unit of
11 work;

12 running means for running the rules for participants
13 identified as having at least one rule;

14 second determining means for determining whether a
15 violation of an integrity rule within the rules
16 identified for any participant has occurred; and

17 committing means for committing the unit of work
18 depending on the results of running the rules.

1 23. The data processing system of claim 22 further
2 comprising:

3 aborting means for aborting completion of processing
4 by the unit of work in response to a determination that a
5 violation of a rule has occurred; and

6 committing means for committing completion of
7 processing by the unit of work in response to a
8 determination that no violation of a rule has occurred.

1 24. The data processing system of claim 22, wherein each
2 participant has zero or more rules associated therewith.

632027 F.64050

Index

4 first instructions for identifying a point in a unit
5 of work where application state integrity is to be
6 verified, wherein the unit of work includes a plurality
7 of participants;

11 third instructions for responsive to obtaining the
12 rules, running the rules obtained for each of the
13 participants to verifying the integrity of the system,
14 according to the plurality of participants.

3 first instructions for responsive to a negative
4 result obtained by running the rules, aborting the unit
5 of work.

2 first instructions for responsive to a positive
3 result obtained by running the rules, committing the unit
4 of work.

1 28. A computer program product in a data processing
2 system for performing general integrity checks using
3 rules, the computer program product comprising:

Sub 22
Docket No. AT9-98-267

4 first instructions for detecting a commit for a unit
5 of work;

6 second instructions for identifying participants in
7 the unit of work in response to detecting the commit for
8 the unit of work;

9 third instructions for determining whether rules are
10 present for the participants in the unit of work;

11 fourth instructions for running the rules for
12 participants identified as having at least one rule;

13 fifth instructions for determining whether a
14 violation of an integrity rule within the rules
15 identified for any participant has occurred; and

16 sixth instructions for committing the unit of work
17 depending on the results of running the rules.

1 29. The computer program product of claim 28 further
2 comprising:

3 first instructions for aborting completion of
4 processing by the unit of work in response to a
5 determination that a violation of a rule has occurred;
6 and

7 second instructions for committing completion of
8 processing by the unit of work in response to a
9 determination that no violation of a rule has occurred.

3622174640220